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PRE-APPEAL BRIEF REQUEST FOR REVIEWDocket Number (Optional)
32860-000181/US

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On _____

Signature _____

Typed or printed name _____

Application Number

10/030,870

Filed

October 19, 2001

First Named Inventor

Robert BOESNECKER

Art Unit

2615

Examiner

D.E. Faulk

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)

☒ attorney or agent of record.
Registration number 34,313.

☐ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 ■■■

Signature

Donald J. Daley

Typed or printed name

703.668.8000

Telephone number

August 6, 2007

Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of ■ forms are submitted.



PATENT
32860-000181/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Robert BOESNECKER CONF. NO.: 8899
SERIAL NO.: 10/030,870 GROUP: 2615
FILED: October 19, 2001 EXAMINER: D. E. Faulk
FOR: FLAT SURFACE LOUDSPEAKER, AND A METHOD FOR ITS
OPERATION

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314
Mail Stop AF

August 6, 2007

REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW

Dear Sir:

Further to the concurrent filing of the attached Notice of Appeal and Pre-Appeal Brief Request for Review, the following remarks are submitted in connection with the above-identified patent application under the Pre-Appeal Brief Review. Claims 1-12 are pending in the present application. Claims 1 and 4 are independent claims.

MATERIAL UNDER REVIEW

Review is requested for the rejection of claims 1-6, 8 and 10 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mäkivirta et al. (EP 0 567 061, hereinafter "Mäkivirta") in view of Azima et al. (U.S. Patent No. 6,198,831, hereinafter "Azima").¹

I. Changing the Designation of References Does not Make-up for Lack of Reason to Combine

The Examiner argues that the Pre-Appeal Conference Decision (dated August 8, 2006) states only that the previous rejection in view of Azima and Mäkivirta, and that it was the suggestion of the Pre-Appeal Brief Review Conference Attendees that the Examiner use the

¹ Final Office Action, p. 2 (May 14, 2007).

same references, but reverse the order.² As previously argued, however, a mere reversal in the designation of the references still does not make up for the lack of reason to combine.³ Even in the previous rejection, one of ordinary skill would consider both disclosures in their entirety, regardless of which was considered by the Examiner as the primary reference. As Applicant has previously and persuasively shown (**and the Pre-Appeal Brief Review Board agreed**), one of ordinary skill would not have had sufficient reason to combine Mäkivirta and Azima to arrive at the method of claim 1, for example; regardless of which reference is designated as the primary reference and which is designated as the secondary reference.

II. The Examiner Relies upon Azima to Teach More than Merely a Flat Panel Speaker.

The Examiner further argues that, "[Azima]" was cited only for disclosing a flat panel loudspeaker."⁴ This is not the case. The Examiner clearly relies upon filter/correlator 64 and column 5, lines 25-26 to allegedly teach the "measuring," step of claim 1.⁵ The filter/correlator 64, however, is not found only in Azima, **not** Mäkivirta. Consequently, the Examiner's apparent reliance on Azima to teach only a flat panel speaker is incorrect. As the Pre-Appeal Brief Review Board will appreciate, Azima is further relied upon to allegedly teach the "measuring," step of claim 1. However, Applicant respectfully submits that Azima even in combination with Mäkivirta (assuming *arguendo* such a combination could be made, which Applicant's do not admit) teaches no such thing.

III. Even if Combined, Azima and Mäkivirta Fail to Render Claim 1 Obvious.

While Azima arguably discloses measuring signal correction, the measured signal correction is applied only to the **microphone use of the panel** not loudspeaker use. **Azima is silent about the details of the correction method performed by the filter/correlator (64) driven by a vibration transducer (63) during loudspeaker use of the panel (2).** Moreover, even if details of the signal correction method were disclosed, Azima fails to teach how a signal is corrected and how that correction is applied to the input signal of the panel (2) when used as a loudspeaker. Therefore, Azima fails to teach or suggest, "emitting sound by the surface stimulated to oscillate mechanically by the oscillating coil," and "measuring the acoustic frequency response of this flat surface loudspeaker," as required by claim 1.

² *Id.*

³ *Applicant's Previous Response*, p. 6 (Feb. 15, 2007).

⁴ *Final Office Action* at 4.

⁵ *Id.* at 2, 5.

Turning to the teachings of Mäkivirta, although Mäkivirta implies that frequency response is measured, Mäkivirta fails to teach or fairly suggest that such a frequency response is measured from a sound emitted from the flat panel loud speaker. Therefore, Mäkivirta also fails to teach or suggest "emitting sound by the surface stimulated to oscillate mechanically by the oscillating coil," and "measuring the acoustic frequency response of this flat surface loudspeaker," as required by claim 1.

Because neither reference teaches or suggests the above recited feature of claim 1, the combination of references (assuming *arguendo* such a combination could be made, which Applicant does not admit) does not render claim 1 obvious.

IV. One of Ordinary Skill Would Have No Reason to Combine and Would Have Been Lead Away From the Examiner's Alleged Combination.

As previously argued, in Mäkivirta, an FIR filter is designed such that the response is an inverse of the amplitude response of the loudspeaker system between selected frequencies. The wideband filter (4), substantially covering the desired audio range and being a digital filter, is implemented in a digital signal processor programmed to implement a desired transfer function. In sum, Mäkivirta refers to a sound reproduction system with a **conventional membrane-type loudspeaker** (i.e., sound radiating from a **point-like sound source**). The conventional membrane-type loudspeaker is arranged in a loudspeaker cabinet such as the housing of a TV set. In this type of sound reproduction system, sound is corrected because the audio output of conventional membrane-loudspeakers is heavily influenced by its installation in a cabinet, for example, housing of a TV set or a mobile telephone.

Azima discloses a panel form combination loudspeaker/microphone for use in interactive environment. The loudspeaker/microphone combination comprises a rectangular frame carrying a resilient suspension around its inner periphery supporting a distributed mode sound radiating panel. As shown in FIGS. 3 and 4 of Azima, a transducer (9) is mounted only and exclusively on (or in) the panel (9) at a predetermined location. The position of the predetermined location is calculated such that bending waves are launched into the panel (2). The bending waves cause the panel (2) to resonate and radiate an acoustic output. The transducer (9) is driven by a signal amplifier.

Still referring to Azima, for use as a sound receiver or microphone the panel (2) also carries a pair of vibration transducers (63) coupled in parallel. The pair of vibration transducers (63) drive a signal receiver and conditioner (65) connected to an output. Another vibration

transducer (63) on the panel (2) is coupled to drive a filter/correlator (64). The output of the filter/correlator (64) is fed to the signal receiver and conditioner (65) for signal correction.

As the Pre-Appeal Brief Review Board will appreciate, the speakers in Mäkivirta and Azima are two distinctly different types of speakers. The Examiner essentially argues one of ordinary skill in the relevant art would modify Mäkivirta's speaker to be a flat panel speaker because doing so would produce a superior speaker.⁶ However, because the speakers are two distinctly different types of speakers, one of ordinary skill would have no plausible reason to combine Mäkivirta and Azima to arrive at the claimed invention.

Furthermore, if the man skilled in the art would have looked to Azima for the deficiencies of Mäkivirta, he/she would have been lead away from the present invention: Azima teaches to optimize the acoustic output by placing a transducer (9) on or in a panel at a predetermined location. According to the disclosure the sound-output is best, if the position of the transducer (9) is calculated as described in U.S. patent applications with serial nos. 09/011,773, 09/011,770 and 09/011,831. Additionally, Azima mentions signal correction only in connection with the microphone use of the panel, but not for the loudspeaker use of the panel.

For at least the foregoing reasons, Applicant requests the Pre-Appeal Board reverse the Examiner's rejection of claims 1-6, 8 and 10.

CONCLUSION

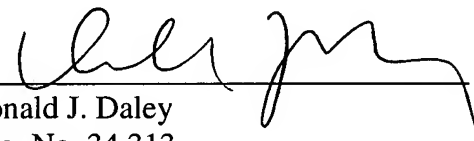
In view of the remarks, reconsideration of the objections and rejections and allowance of each of claims 1-12 in connection with the present application is earnestly solicited.

⁶ *Id.* at 3.

Should there be any outstanding matters that need to be resolved in the present application, the Pre-Appeal Brief Review Board is respectfully requested to contact the undersigned at the telephone number. If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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